

Application No. 09/818,706
Amendment dated December 04, 2003
Reply to Office Action dated June 05, 2003

REMARKS

The non-final Office Action mailed June 5, 2003 has been reviewed in detail. The Examiner will note that selected claims have been amended in response. In addition, arguments in support of patentability are provided below. Reexamination and reconsideration of the application as amended are respectfully requested.

Claims 1-9 are rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,636,800 – Wolf (“Wolf”) in view of U.S. Patent No. 5,106,598 – Cogar (“Cogar”) and/or U.S. Patent No. 6,059,206 – Potts (“Potts”). Apparently the Examiner also has incorporated U.S. Patent No. 3,874,273 into the rejection by reference to “Forbes” on page 3 of the Office Action. Therefore, for purposes of this response, applicant has treated this as a combination of four patents, i.e., inclusive of U.S. Patent No. 3,864,273 to Forbes, et al (“Forbes”).

The Examiner’s rejection is respectfully traversed. The Examiner has selected particular teaching from each of the patents, recognizes deficiencies in the base reference to Wolf, and simply concludes that one skilled in the art would have found it obvious to overcome these deficiencies by using limited teachings from the additional references. It is respectfully submitted that a motivation must be provided to combine the patents and that the Examiner has not established a *prima facie* case of obviousness.

More particularly, the Examiner recognizes that Wolf does not disclose removing the phosphor by washing the material from the glass fragments and subjecting it to a sedimentary process. The Examiner also recognizes that Wolf does not heat treat the mechanically crushed glass to remove a binder and thereafter to wash the glass fragments and separate the phosphor binder into a suspension through the sedimentary process. Instead, the Examiner relies on Forbes for the particular teaching of heat treating to remove a binder. The Examiner concludes that “the steps of washing to remove glass fragments and heat treating to remove a binder is disclosed by Forbes have been reversed above, [and that] one of ordinary skill in the art would have recognized that the two steps could have been optionally reversed since the removal of a binder would obviously facilitate the separation of phosphor from the glass, just as removal of

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the glass facilitates the removal of the binder from the phosphor." This conclusion is respectfully traversed. The only reason the Examiner reaches this conclusion is in an effort to piece the individual references together. There is no such teaching nor motivation in the art. Again, selected teachings from applicant's own disclosure have been used in an effort to combine the individual disparate teachings together.

Similarly, the Examiner recognizes that Wolf is deficient for not teaching that the remaining material can be magnetically separated. Here, the Examiner simply concludes one of ordinary skill in the art would have incorporated a magnetic material to separate the components "since the magnetic property differentiates the two components." Again, the only teaching of this limitation is in applicant's own disclosure. Thus, claim 9, as well as new claims 10-17 define over Wolf, Potts, Kogar, and Forbes, whether taken individually or in combination.

New independent claim 10 is presented to further differentiate distinctions relative to the prior art. Wolf is directed to an arrangement that separates the glass of the lamp body from the glass of the lamp base. This is the primary thrust of that patent. The present application, however, does not concern itself with this feature and in fact recognizes, with Figure 6 and the associated description on pages 8 and 9, that the sealed ends of the glass bodies are also treated. Applicant uses magnetic separation of the metallic components in step 13 and also recognizes that certain metal components may not be magnetizable, but are either attached to other components that are magnetizable or that will fall out by sieving. These features are neither shown nor even remotely suggested by Wolf or any of the remaining prior art. Accordingly, claims 10-17 further define over any fair teaching attributable to the art.

Wolf teaches that air/shaking screens recover the glass components, mixtures of powdered glass, fluorescent material, and mercury. The distillation step is used to separate the fluorescent material from mercury. To then pick and choose teachings from Cogar of lamp washing devices (particularly where the ends of the lamp are removed) is not a viable combination, but rather a separate alternative process. The same can be stated for Potts. Three separate crushing operations or breaking operations are described in Potts. Again, this is a significantly different process of forming progressively smaller components which are then

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subsequently recycled or purified to limit the introduction of mercury into the environment. Admittedly, Forbes teaches that an elevated temperature range of 450°C to 550°C can be used to "thermally decompose or volatilize the commonly employed polyvinyl alcohol binder used in television screen manufacture without degrading the rare-earth phosphor." However, Forbes is dealing with a different product, i.e., not discharge lamps, and then subjects the phosphors to various solvents and dispersions in an effort to physically separate the materials. Although phosphors may be involved, this does not necessarily make the teachings applicable to a discharge lamp recovery process. Accordingly, claims 1-9 and new claims 10-17 are deemed to define over the prior art.

Since all formal and informal matters have been addressed this application is in condition for allowance. Early notice to that effect is earnestly solicited.

Respectfully submitted,

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